## IN THE CLAIMS

The following listing of the claims is provided in accordance with 37 C.F.R. 1.121:

1. (currently amended) A machining apparatus comprising:

a discharge machining head assembly; ~~and~~

a silde assembly supporting the head assembly; and

an electromagnet configured to support the ~~head~~ slide assembly in a position on a work piece to machine an area;

wherein the slide assembly permits linear displacement of the head assembly generally parallel to the supporting work piece surface.

2. (original) The apparatus of claim 1, wherein the head assembly has dimensions no larger than about 6.5 inches by about 9.6 inches by about 5.5 inches.

3. (original) The apparatus of claim 1, wherein the head assembly has dimensions no larger than about 3.3 inches by about 4.8 inches by about 2.8 inches.

4. (original) The apparatus of claim 1, configured to have five axes of adjustment.

5. (original) The apparatus of claim 1, further comprising three manual slides configured to provide three axes of adjustment for the discharge machining head assembly.

6. (original) The apparatus of claim 1, further comprising a tilt and swivel vice configured to provide 2 axes of adjustment for the discharge machining head assembly.

7. (original) The apparatus of claim 1, wherein the discharge machining head assembly is an electro-discharge machining head assembly.

8. (original) The apparatus of claim 1, wherein the discharge machining head assembly is an electrochemical discharge machining head assembly.

9. (original) The apparatus of claim 1 wherein the discharge machining head assembly is configured to drill a hole of up to about 12 mm in diameter.

10. (currently amended) An apparatus for machining comprising:

a discharge machining head assembly; ~~and~~

a tilt device supporting the head assembly for tiliting the head assembly with respect to a work piece; and

a head assembly adaptor plate coupled to the discharge machining head assembly for supporting the head assembly on the tilt device.

11. (original) The apparatus of claim 10, wherein the adaptor plate is configured to also couple to a multi-axis robot arm.

12. (original) The apparatus of claim 10, wherein the apparatus has dimensions no larger than about 6.5 inches by about 9.6 inches by about 5.5 inches.

13. (original) The apparatus of claim 10, wherein the apparatus has dimensions no larger than about 3.3 inches by about 4.8 inches by about 2.8 inches.

14. (original) The apparatus of claim 10, wherein the discharge machining head assembly is an electro-discharge machining head assembly.

15. (original) The apparatus of claim 10, wherein the discharge machining head assembly is an electrochemical discharge machining head assembly.

16. (original) The apparatus of claim 10 wherein the discharge machining head assembly is configured to drill a hole of about 12 mm in diameter.

17. (currently amended) An apparatus for machining comprising:

a discharge machining head assembly;

an electromagnet for supporting the head assembly on a work piece surface;

a sliding assembly coupled to the discharge machining head assembly; and

a sliding assembly adaptor plate coupled to the ~~sliding~~ head assembly for supporting the sliding assembly on the electromagnet.

18. (original) The apparatus of claim 17, wherein the adaptor plate is configured to couple to a multi-axis robot arm.

19. (original) The apparatus of claim 17, wherein the head assembly has dimensions no larger than about 6.5 inches by about 9.6 inches by about 5.5 inches.

20. (original) The apparatus of claim 15, wherein the head assembly has dimensions no larger than about 3.3 inches by about 4.8 inches by 2.8 about inches.

21. (original) The apparatus of claim 17 configured to have 5 axes of adjustment.

22. (original) The apparatus of claim 17, wherein the sliding assembly comprises three manual slides which are configured to provide 3 axes of adjustment to the discharge machining head assembly.

23. (original) The apparatus of claim 17, wherein the slide assembly comprises a tilt and swivel vice which is configured to provide 2 axes of adjustment to the discharge machining head assembly.

24. (original) The apparatus of claim 17, wherein the discharge machining head assembly is an electro-discharge machining head assembly.

25. (original) The apparatus of claim 17, wherein the discharge machining head assembly is an electrochemical discharge machining head assembly.

26. (original) The apparatus of claim 17 wherein the discharge machining head assembly is configured to drill a hole of about 12 mm in diameter.

27. (canceled)

28. (canceled)

29. (currently amended) A method for machining comprising:

magnetically attaching a machining tool to a surface;

positioning a drill electrode to a work piece via a slide assembly; and

drilling the work piece with the machining tool;

wherein the slide assembly permits linear displacement of the machining tool generally parallel to the supporting work piece surface.

30. (canceled)

31. (original) The method of claim 29 wherein the positioning act comprises:

adjusting a 5 axis slide assembly to position the drill electrode.

32. (original) The method of claim 29, wherein the drilling act comprises:

drilling the work piece with the machining tool using electro-discharge machining.

33. (original) The method of claim 29, wherein the drilling act comprises:

drilling the work piece with the machining tool using electrochemical discharge machining.

34. (original) The method of claim 29, wherein the drilling act comprises:

drilling out a stator blade pin with the machining tool.